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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/769,536	01/26/2001	Mitsunobu Teramoto	P 276641 TGS-93-1	4903

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EXAMINER

VO, HAI

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 08/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/769,536

Applicant(s)

TERAMOTO ET AL.

Examiner

Hai Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitations that the extruded member and the molded part have an approximately identical hardness to each other are not found support in Applicants' specification. Applicants state that the hardness of the foamed TPO having the low deformation tensile stress of 300 Kpa approximately corresponds to Hs 50° which is the hardness of the non-foamed TPO of the molded part (page 7 of Applicants' specification). The claims recite the molded part having a hardness of Hs 40° to 50°, and the extruded member having a low deformation tensile stress of 300 Kpa or less. It is not necessary that the extruded member and the molded part would have an approximately identical hardness to each other with respect to the ranges as claimed by the present application.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al (US 6,500,561) in view of Brzoskowski et al (US 6,242,502) and Brzoskowski et al (US 6,221,964). The applied reference has a common Toyota Gosei Co., Ltd. with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Yoshida teaches a door weather strip for attachment to a periphery of a vehicle door having a base portion, a tubular main seal portion and a lip shaped sub-seal portion as recited in the claim. Yoshida teaches the door weather strip comprising two extruded members 12, 14 and a molded part 16 for connection ends of the extruded member (figure 1) wherein the extruded member is composed of a foamed EPDM polymer which is prepared by chemical foaming (column 7, lines 30-60). Yoshida discloses the molded part being composed of a non-foamed thermoplastic olefin elastomer (TPO) which has a hardness of 42° (table 1). Yoshida fails to teach or suggest the extruded member made of a foamed TPO. Brzowski-502 teaches the TPO foam used for a door seal having an average cell size of 60 microns (abstract, table 2, column 9, lines 3-5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to produce the extruded member made of a foamed TPO with cell diameters within Applicant's claimed range, motivated by the desire to obtain a weather seal with fine and uniform cell structure so as to produce smooth surfaces for improved sealing against incoming air and water, which is important to the invention of Yoshida, thus further suggesting the modification.

Yoshida as modified by Brzowski-502 does not specifically disclose a tensile stress at break of the extruded member. Therefore, it is necessary and thus obvious for the skilled artisan to look to the prior art for the suitable tensile stress at break of the extruded member. It appears that Brzowski-502 and Brzowski-964 are directed to the foamed TPO article comprising a thermoplastic elastomer on

the basis of a polyolefin and a rubber and having a density of 50-900 kg/cm³ (Brzowski-502, column 8, line 58 vs. Brzowski-964, column 6, line 19). Brzowski-964 teaches the foamed TPO article having a tensile stress at break of 240 Kpa within the claimed range (table 3). In an absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to produce the extruded member made of a foamed TPO with a tensile stress at break within Applicant's claimed range motivated by the desire to obtain a weather seal with fine and uniform cell structure so as to produce smooth surfaces for improved sealing against incoming air and water, which is important to the invention of Yoshida, thus further suggesting the modification.

Yoshida does not specifically disclose an expansion ratio of the extruded member. However, the extruded member of Yoshida as modified by both Brzowski references has a cell size, density and tensile stress at break within the claimed ranges and the cell size, density and tensile stress together dictate the expansion ratio of the foamed TPO. It is the examiner's position that the expansion ratio would have been inherently present. Further, Applicants state that the low deformation tensile stress of 300Kpa approximately corresponds to Hs 50° which is the hardness of the non-foamed TPO of the molded member (page 7 of Applicants' specification). Brzowski-964 teaches the foamed TPO article having a tensile stress at break of 240 Kpa (table 3). It is not seen that the foamed TPO article would have possessed the hardness outside the range disclosed by the present invention.

Since the door weather strip of Yoshida as modified by Brzoskowski meets all the structural limitations recited in the claims (base portion, seal portion, sub-seal portion) wherein the extruded member and the mold part have the physical properties required by the claims (cell size, low deformation tensile stress and hardness), it is the examiner's position that the uniform flexibility over the entire length of the door weather seal would be inherently present. This is in line with Ex parte Slob, 157 USPQ 172. It seems from the claim, if one meets the structure recited, the properties must be met or Applicant's claim is incomplete.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (JP 11-348576) in view of Brzoskowski et al (US 6,242,502) and Brzoskowski et al (US 6,221,964) and Kato (US 5,992,928). Mori teaches a door weather strip for attachment to a periphery of a vehicle door comprising an extrusion-molding portion and a die-molding portion (figure 4). The extrusion-molding portion is comprised of a sponge rubber such as TPO. The die-molding portion has the same cross-section configuration as the extrusion-molding portion and connects the ends of the extrusion-molding portion and is comprised of TPO (figures 1-9).

Mori does not specifically disclose the average cell diameter of the sponge TPO of the extrusion-molding portion. Therefore, it is necessary and thus obvious for the skilled artisan to look to the prior art for the suitable cell diameter of the sponge TPO. Brzoskowski-502, however, teaches the TPO foam for use in door seals having an average cell size of 60 microns (abstract, table 2, column 9, lines 3-5), meeting the range set out in the claims. In an absence of unexpected results, it

would have been obvious to one having ordinary skill in the art at the time the invention was made to produce the extruded member having an average cell diameter within Applicant's claimed range, motivated by the desire to obtain a weather seal with fine and uniform cell structure so as to produce smooth surfaces for improved sealing against incoming air and water, which is important to the invention of Yoshida, thus further suggesting the modification.

Mori does not specifically disclose a tensile stress at break of the extruded member. Therefore, it is necessary and thus obvious for the skilled artisan to look to the prior art for the suitable tensile stress at break of the extruded member. It appears that Brzowski-502 and Brzowski-964 are directed to the foamed TPO article comprising a thermoplastic elastomer on the basis of a polyolefin and a rubber and having a density of 50-900 kg/cm³ (Brzowski-502, column 8, line 58 vs. Brzowski-964, column 6, line 19). Brzowski-964 teaches the foamed TPO article having a tensile stress at break of 240 Kpa within the claimed range (table 3). In an absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to produce the extruded member having a tensile stress at break within Applicant's claimed range motivated by the desire to obtain a weather seal with fine and uniform cell structure so as to produce smooth surfaces for improved sealing against incoming air and water, which is important to the invention of Yoshida, thus further suggesting the modification.

Mori does not specifically disclose an expansion ratio of the extruded member. However, the extruded member of Mori as modified by both Brzowski

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references has a cell size, density and tensile stress at break within the claimed ranges and the cell size, density and tensile stress together dictate the expansion ratio of the foamed TPO. It is the examiner's position that the expansion ratio would have been inherently present. Further, Applicants state that the low deformation tensile stress of 300Kpa approximately corresponds to Hs 50° which is the hardness of the non-foamed TPO of the molded member (page 7 of Applicants' specification). Brzowski-964 teaches the foamed TPO article having a tensile stress at break of 240 Kpa (table 3). It is not seen that the foamed TPO article would have possessed the hardness outside the range disclosed by the present invention.

Mori does not specifically disclose the hardness of the molding portion. Therefore, it is necessary and thus obvious for the skilled artisan to look to the prior art for the suitable hardness of the molding portion. Kato, however, discloses a TPO molding portion of a weather strip wherein the preferred hardness for the molding portion is within the range 20° to 80°. Kato discloses that hardness values in this range produce good moldability, good strength and good absorption of expansion and contraction forces. Therefore, it would have been obvious to the skilled artisan at the time the invention was made to use a die-molding portion with a hardness within Applicant's claimed range motivated by the desire to produce a weather strip with good moldability, good strength and good absorption of expansion and contraction forces, which is important to the invention of Mori, thus further suggesting the modification. The examiner wishes to point out that the hardness within the range 40° to 50° is a preferred range, an optimum range as disclosed in

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Applicants' specification. The range is not described as the critical values as argued by Applicants (see page 6 of Applicants' specification). Applicants need to provide evidence or affidavit to demonstrate that the hardness outside the range as claimed would lead to the failure of the door closure to overcome the finding of obviousness.

Since the door weather strip of Mori as modified by Brzoskowski and Kato meets all the structural limitations recited in the claims (extruded member, molded part) wherein the extruded member and the mold part have the physical properties required by the claims (cell size, low deformation tensile stress and hardness), it is the examiner's position that the uniform flexibility over the entire length of the door weather seal would be inherently present. This is in line with Ex parte Slob, 157 USPQ 172. It seems from the claim, if one meets the structure recited, the properties must be met or Applicant's claim is incomplete.

Response to Arguments

6. The art rejections over Mori in view of Peterson, Okada and Kato have been overcome by the present amendment and response.
7. Applicant's arguments with respect to claims 1 and 5 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (703) 605-4426. The examiner can normally be reached on Tue-Fri, 8:30-6:00 and on alternating Mondays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

HV
August 8, 2003



TERREL MORRIS
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